



14-57250 0311955090 - Cook
Morton Grove / North
HYDRODYNAMICS CONSULTANTS, INC. Suburban Cleaners
SR/Tech

Environmental Engineering, Consulting, and Contracting

July 31, 2014

Attn: Mr. James Baldwin, Project Manager
Remedial Project Management Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
P.O.Box 19276
Springfield, IL 62794-9276

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IEPA-DIVISION OF RECORDS MANAGEMENT
RELEASABLE

SEP 16 2014

REF: **Soil Gas Sampling Report**
0311955090-Cook County-North Suburban Cleaners
7620 Dempster Street
Morton Grove, Illinois

REVIEWER: JKS

Dear Mr. Baldwin:

Hydrodynamics Consultants, Inc. completed the soil gas sampling on July 22, 2014 in accordance with our soil gas sampling plan for North Suburban Cleaners. This letter summarizes the soil gas sampling results.

1. Previous Site Investigation Results

Prior to HDC's work, Northern Environmental Technologies, Inc. (NET) performed a site investigation at this site from 2003 to 2004, during which NET completed 14 soil borings and 6 monitoring wells. In July of 2013, HDC performed 5 additional soil borings and converted 2 of the borings to monitoring wells. A focused Site Investigation Report was prepared by HDC and submitted to the IEPA, which was approved by the IEPA in its letter of March 13, 2014.

The site investigation tasks performed and their findings can be summarized as follows:

- A total of 19 soil borings and 8 monitoring wells have been installed at the subject property to collect 52 soil samples and 14 groundwater samples for analyses of volatile organic compounds (VOCs) to fully delineate the horizontal and vertical extent of the contamination in soil and groundwater at the subject property.
- Laboratory analytical results from soil samples identified contaminants of concern (COCs) at the site to be PCE (up to 10,000 mg/kg), TCE (up to 34 mg/kg), cDCE (up to 55 mg/kg), methylene chloride (also called dichloromethane, DCM, up to 12 mg/kg), and vinyl chloride (VC, up to 8.8 mg/kg) exceeding the IEPA's Tier I soil remediation objectives (SROs). These concentrations were all detected in the first round of sampling in 2003-2004. PCE concentrations have exceeded the soil saturation limit of 310 mg/kg

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for soil component of the groundwater ingestion pathway. The distribution of soil contaminants of concern is illustrated in Figure 2a.

- Groundwater samples collected from monitoring wells are found to contain PCE (up to 0.23 mg/L), TCE (up to 0.14 mg/L), cDCE (up to 5.1 mg/L), and VC (up to 0.64 mg/L). All of these contaminants have exceeded the Tier I groundwater ingestion pathway for Class II groundwater. The VC concentration has also exceeded the groundwater component of indoor inhalation pathway of 0.21 mg/l for buildings with HVAC systems. The distribution of groundwater contaminants of concern is illustrated in Figure 2b.
- The 2013 groundwater sampling results as compared to the 2003-2004 results show significantly decreased levels of COCs, as shown on Figure 2b.
- The native soil beneath the subject property consists of a relatively impermeable clayey formation with hydraulic conductivity measured at 1.51×10^{-6} cm/sec according to NET's report. Groundwater was determined to flow southwesterly with a 21% gradient as reported by NET in 2004. The local groundwater is classified as Class II groundwater. This gradient probably does not accurately reflect the general groundwater flow trend since the local ground surface gently slopes to the southeast with less than a 1% slope and a 21% gradient in a relatively flat area like this would be surprising.
- It appears that the source of the contamination was the drycleaning plant based on the distribution of the soil contamination. The sanitary sewer located to the north of the building may have functioned as a preferred pathway to the COCs.
- Drycleaning solvent (PCE) concentrations higher than its soil saturation limit for soil component of groundwater ingestion pathway cover an area of 792 square feet. The PCE's Csat plume is vertically distributed from above a 10' depth at B900 to below a 26' depth at B700 (see Figure 2a).
- According to the existing soil and groundwater sampling results, and the IEPA's approval letter of March 13, 2014, HDC believes that the soil and groundwater contamination extent has been fully delineated horizontally and vertically within the remediation site boundary which is defined as the entire property.
- The use of groundwater in the Villages of Morton Grove and Niles is prohibited by ordinance and all residents, schools, businesses and other entities are provided with water taken from Lake Michigan.

All of the previous test results are illustrated in Figures 2a (Soil) and 2b (groundwater).

2. Soil Gas Sampling Locations

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According to the existing site investigation results illustrated in Figures 2a and 2b, HDC believes the center of the contaminants of concern (COCs) plume was behind the former drycleaning machine and below the former waste storage area (B200). Soil with PCE higher than its default soil saturation limit of 310 mg/kg extends from the center (B100) to the west possibly along the sewer line. But the PCE Csat plume, to some lesser extent, also extends in all other directions. To determine the potential soil gas concentration and migration directions, HDC collect six (6) soil gas samples at the following locations:

- SV1:** It is designed to collect a soil gas sample at the spot where the highest amount of PCE (10,000 mg/kg) was found in 2003-2004. This sample will potentially provide the highest COC concentrations in soil gas.
- SV2:** It is designed to collect a soil gas sample to the west of the PCE Csat plume. This sample may assess the soil gas migration potential to the west of the plume. It is also located near the sanitary sewer line where preferred soil gas migration may occur.
- SV3:** It is designed to collect a soil gas sample to the north of the PCE Csat plume. This sample may assess the soil gas migration potential to the north of the plume. Residential houses are present to the north of the property line.
- SV4:** It is designed to collect a soil gas sample to the east of the PCE Csat plume. This sample may assess the soil gas migration potential to the east of the plume. Residential houses are present to the east of the property line.
- SV5:** It is designed to collect a soil gas sample to the south of the PCE Csat plume. This sample may assess the soil gas migration potential to the south of the plume. Residential houses are present to the south of the property line.
- SV6:** It is added in the area in the front of the restroom inside the building to determine if the neighboring stores could be affected by the soil vapor intrusion.

The actual soil gas sampling locations are illustrated in Figure 3.

3. Soil gas Sampling Procedures

The Illinois Environmental Protection Agency (IEPA) has provided Vapor Intrusion Fact Sheet - Soil Gas Sampling Protocols. Based on the IEPA's Soil Gas Sampling Protocols, Hydrodynamics Consultants has employed the following sampling procedures with GeoProbe's Post Run Tubing (PRT) System and Summa canisters:

1. A soil gas sample is taken from exterior or near slab areas at approximately 2.5' below the ground surface at and near the areas where high volatile organic compounds have

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- been confirmed. No rainfall over ½" occurred within the past 48 hours, the sample is taken above the water table, and the sampling surface area is dry.
2. A clean GeoProbe's direct-push steel rod (4'-long, 1.25" OD with 0.65" hollow ID) with Dispensable Tip mounted on a 1.25"-diameter PRT Expendable Point Holder, is driven to 3.0' below the ground surface.
 3. The sampling rod is pulled up 6" to create a cavity to collect the soil gas sample.
 4. A 4'-long, stainless steel rod with 0.25" OD tip is inserted inside the probe rod to push down the expendable probe tip to the bottom of the probed hole.
 5. 0.25"-OD and 0.125"-ID Teflon tubing is connected to a 0.125"-ID Post-run Tubing Adaptor, and then inserted into the probe rod to thread (counter-clock wise) to the Expendable Point Holder and tightened with an o-ring seal in the bottom of the adaptor.
 6. Concrete/bentonite slurry is applied around the surface of the rod to prevent any surface air entering the hole along the side of the rod.
 7. Sampling Device (Summa canister and flow control regulator provided by a certified lab) Preparation: (a) check to make sure the canister valve is tightly closed, (b) remove cap from the canister air inlet using a 9/16 wrench and use the cap to seal the inlet of the flow control regulator, (c) attach the flow control regulator and tighten it, (d) quickly open the canister valve ½ turn and close it, while observing that the pressure gauge stays at 30" Hg without dropping. If a pressure drop is observed, either tighten the connections or use a new canister.
 8. A 3-way shutoff valve is connected to the surface end of the Teflon tubing to function as a sampling port inlet. The valve is tightly connected to the 0.25" OD and 0.125" ID Teflon tubing with a perfect seal. The inlet port for the Summa canister is connected to one outlet of the 3-way valve while the purging pump is connected onto the other outlet. The 3-way valve can turn on one outlet while turning off the other outlet simultaneously.
 9. The 3-way valve is first turned on to the purging pump outlet to purge 3 times of its volume of tubing and the probed cavity (about 0.5 liter) prior to the sampling.
 10. Turn off the 3-way valve after purging and turn on the inlet for the Summa Canister.
 11. Isopropyl alcohol tracer is sprayed over the sampling train during the sampling to ensure that there is no leakage to the sample train.
 12. Turn on the Summa Canister valve and observe the vacuum pressure drop in the regulator gauge.
 13. A sample of soil gas is drawn through a sampling train, with regulated rate, into the pre-evacuated Summa canister provide by the laboratory.
 14. Turn off the canister valve when the pressure gauge drops to about 5" Hg (8" Hg for this site due to the slow flow rate toward the end); then replace and tighten the canister cap. It may normally take about 8 minutes for each sample to fill a one liter Summa canister, but it took more than 20 minutes for each sample at this site.
 15. Record the final canister pressure and flow controller number on the canister sample tag, including sample ID and other information.

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16. The sample is then sent to the laboratory for analysis of VOCs using Method TO-15, including isopropyl alcohol content as its QA/QC.
17. To prevent any cross contamination, all the sampling probe rods are washed and the tubes are purged with helium gas before next use.
18. The borehole is later sealed to match the existing conditions.

Because of the abnormal precipitations this summer, high moisture content was encountered in the soil probes at a depth of 3.5' below the floor (asphalt or concrete). To ensure smooth soil gas flow into the Summa canisters, the soil gas sampling points were raised to about 2.5' in depth. Even at a 2.5' depth, high moisture content in the soil still made it difficult to withdraw a sufficient air sample from the probe hole. The sampling time was generally extended from 8 minutes (laboratory calibrated flow rate) to about 20 minutes or more.

4. Soil Gas Sample Analytical Results

Upon completion of the soil gas sampling, Summa canisters were picked up by laboratory personal. Stat Analysis Corporation performed the analysis of the soil gas samples with US EPA's Method TO-15 for VOCs. As part of the quality control, isopropyl alcohol concentrations in all of the samples were also analyzed. No high isopropyl alcohol content was found from any of the samples.

Soil gas sample results were converted from parts per million by volume to mg/m^3 directly by the laboratory and then compared with the Tier I soil gas remediation objectives as listed in Appendix B, Table H (Section 742) since HVAC systems are present in the building. The analytical results are listed in Table 1 and the distribution is illustrated in Figure 3.

5. Discussion and Recommendations

Based on the above soil gas sampling results, up to $43,000 \text{ mg}/\text{m}^3$ PCE, $1,500 \text{ mg}/\text{m}^3$ TCE, and $1,400 \text{ mg}/\text{m}^3$ VC were found at the source areas near SV1 and SV4. The concentrations dropped considerably with distance from the source. Soil vapor PCE concentrations are found in all sampling points, except SV6, with concentrations higher than the Tier I remediation objective of $4 \text{ mg}/\text{m}^3$. But they are all lower than their soil vapor saturation limits.

HDC used a photo-ionization detector (PID) to purge the soil gas trapped in the sampling train prior to the sampling. It was noticed, during the soil gas purging, that the initial soil gas PID readings were very high, mostly over the 100 ppm (VOCs) range. The concentrations decreased gradually after about 30 seconds, and the PID readings finally stabilized after about 60 seconds to mostly single digit levels. This phenomenon may suggest there is VOC built-up under the floors, and the VOC build-up can be released by venting or other methods. Installation of a 12"-wide 2'-deep venting trench along the northeastern property lines may help prevent soil vapor from migrating off the property line.

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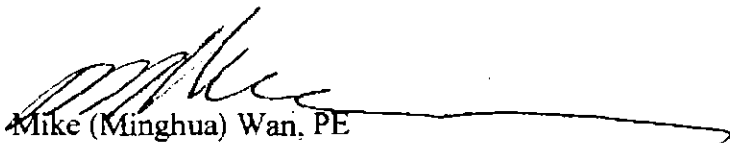
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To minimize the potential of vapor intrusion into the neighboring residential houses, HDC recommends active site remediation be initiated as soon as possible. Because of the urgency created by the potential soil VOC vapor intrusion, HDC recommends active site remediation be fully funded by the Illinois Drycleaners Environmental Response Trust Fund.

As for the remediation objective, HDC recommends reduction of the soil PCE concentrations to below its default C_{sat} of 310 mg/kg within the remediation site at this time. Upon achievement of the above remediation objective, a risk-based site evaluation can be performed based on the confirmation results. A No Further Remediation letter can be pursued under the conditions that (1) the groundwater ordinance adopted by the Village of Morton Grove can be used to exclude the groundwater ingestion pathway, (2) the concrete floor inside the store and the asphalt pavement outside the building can be maintained as engineered barriers to exclude the soil vapor inhalation (outdoor) and soil ingestion exposure routes, (3) a worker caution will be required for any subsurface work below the engineered barrier, (4) building control technologies can be installed if the residual COCs still cause indoor vapor intrusion concerns, (5) a venting trench can be installed to prevent any off-site migration of soil vapor, if warranted after the site remediation; and (6) the NFR letter will be recorded at the county Recorder of Deeds office as the institutional control.

Hydrodynamics Consultants, Inc. appreciates your review and approval of this report.



Mike (Minghua) Wani, PE

Vice President

Cell Phone: 815-919-1310

Email: Mike@hydrodynamicsconsultants.com

Attachments:

1. Figures 1 to 3
2. Table 1, Soil Gas Analytical Results
3. Photos of Soil Gas Sampling
4. Sample Chain-of Custody and Analytical Results

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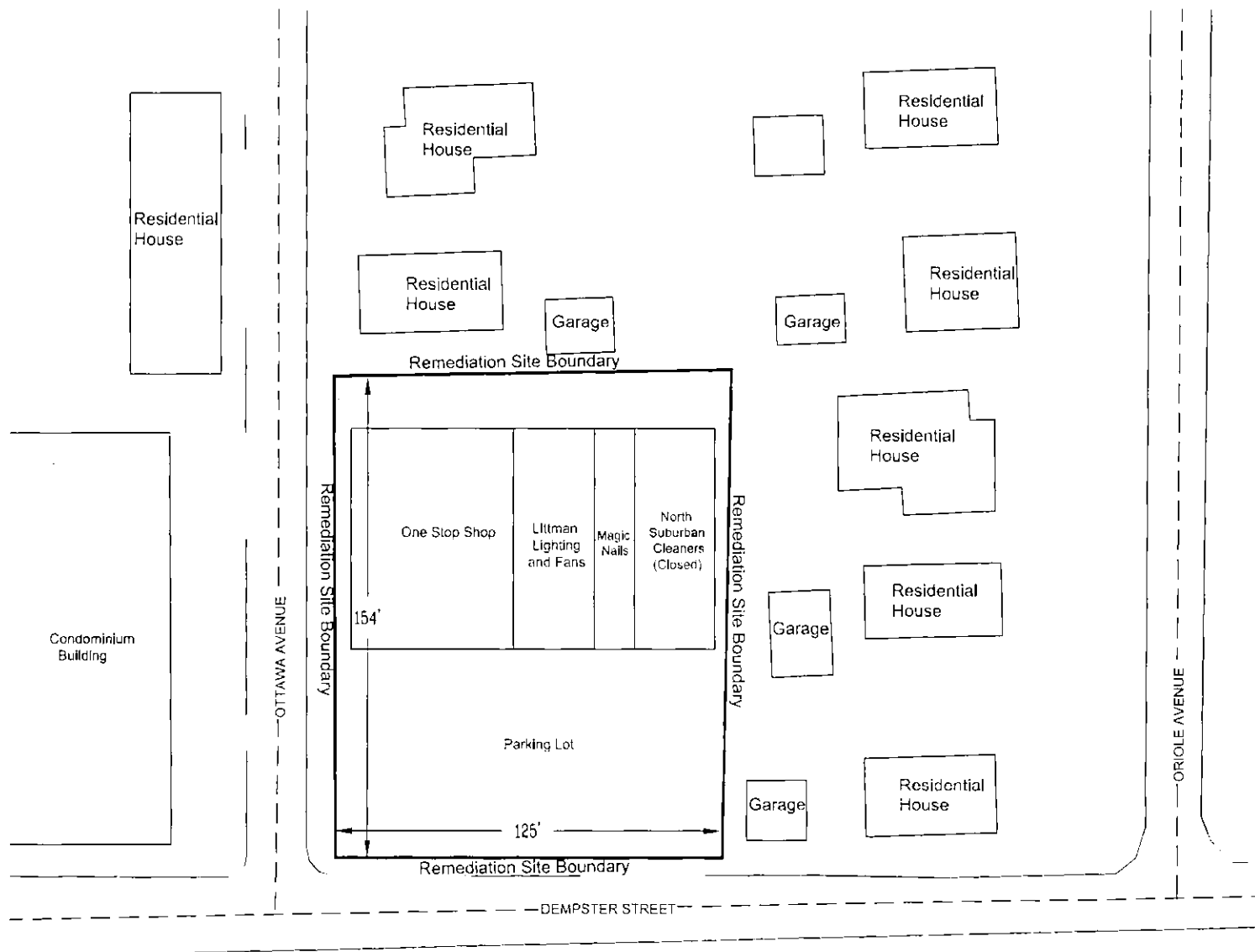
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NORTH

Site Base Map
LPC#:0311955090/Cook County
Morton Grove/North Suburban Cleaners
Site Remediation Program

SCALE
0 50' 100'



Noire Dame High School

7655 W. Dempster St. Niles, IL



Agency ID: 170000353775

Media File Type: LAND

Bureau ID: 0311955090

Site Name: North Suburan Cleaners

Site Address1: 7620 W Dempster St

Site Address2:

Site City: Morton Grove

State: IL

Zip: 96053-

**This record has been determined to
be partially or wholly exempt from
public disclosure**

Exemption Type:

Redaction

Exempt Doc #: 1

Document Date: 8 /6 /2014

Staff: JKS

Document Description: SOIL GAS SAMPLING RESULTS

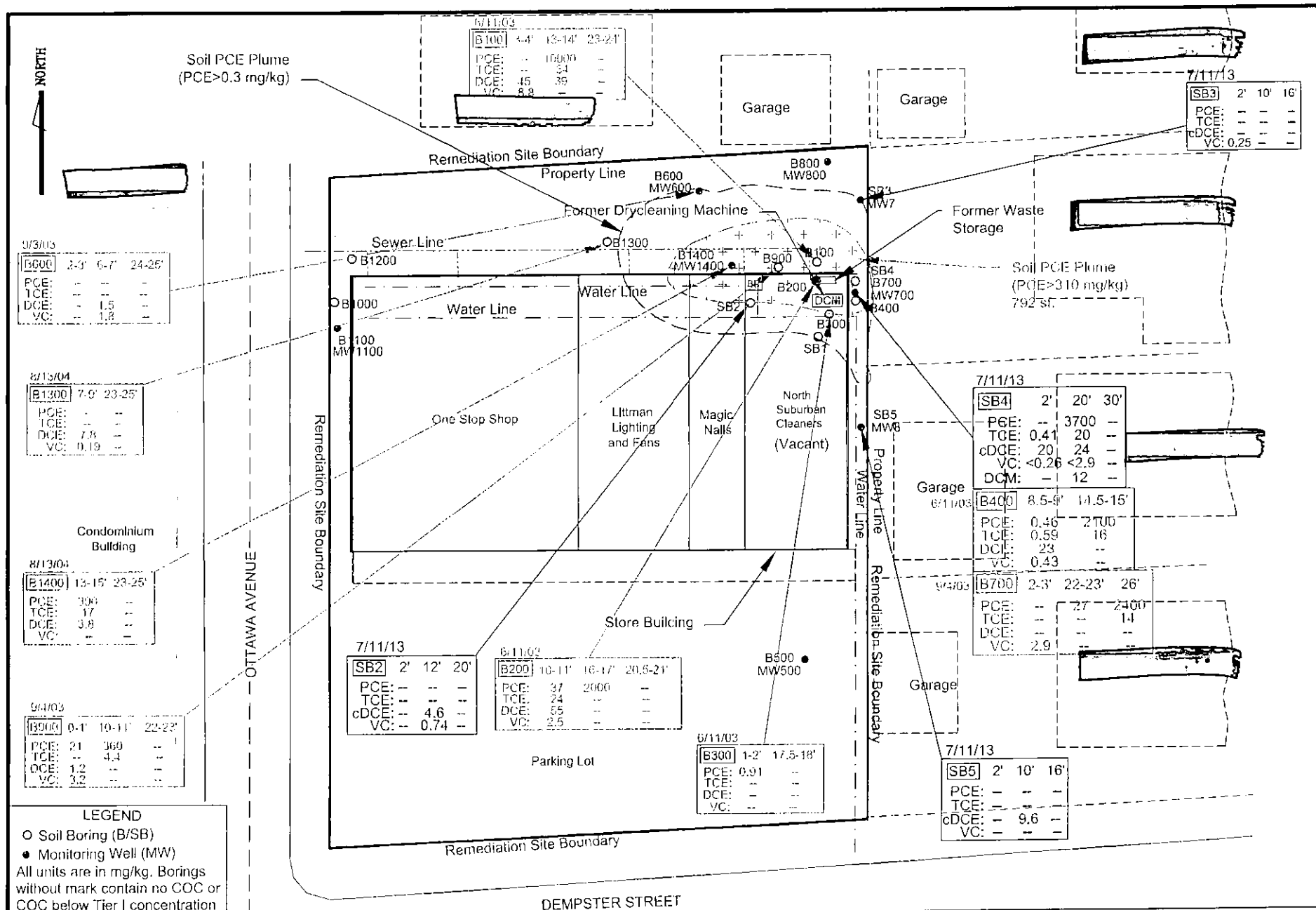
Category ID: 31A

Category Description: SITE REMEDIATION - TECHNICAL

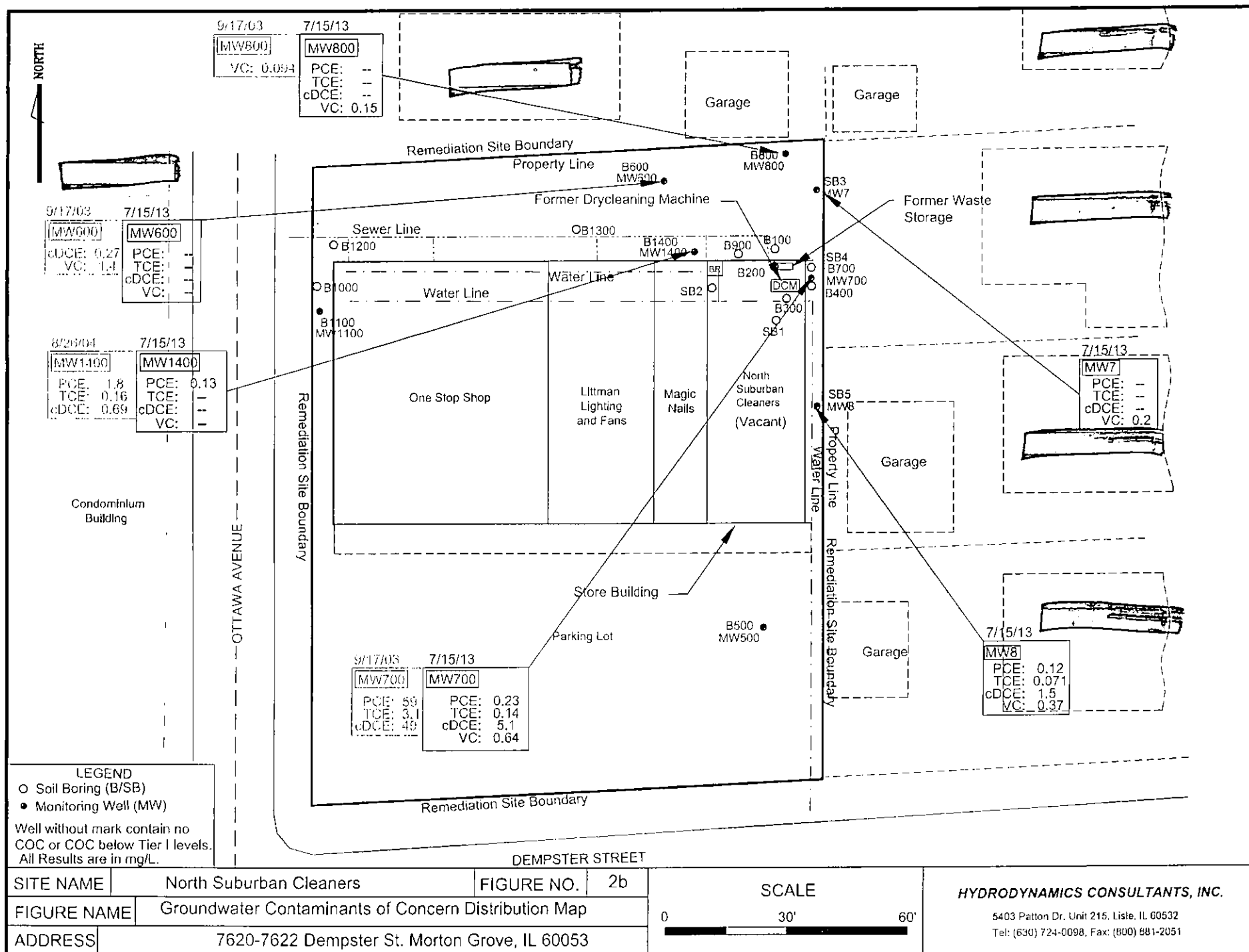
Exempt Type: Redaction

Permit ID:

Date of Determination: 9 /16/2014



SITE NAME	North Suburban Cleaners	FIGURE NO.	2a	SCALE	HYDRODYNAMICS CONSULTANTS, INC.
FIGURE NAME	Soil COC Distribution Map			0 30' 60'	5403 Patton Dr. Unit 215, Lisle, IL 60532
ADDRESS	7620-7622 Dempster St. Morton Grove, IL 60053				Tel: (630) 724-0098, Fax: (800) 881-2051



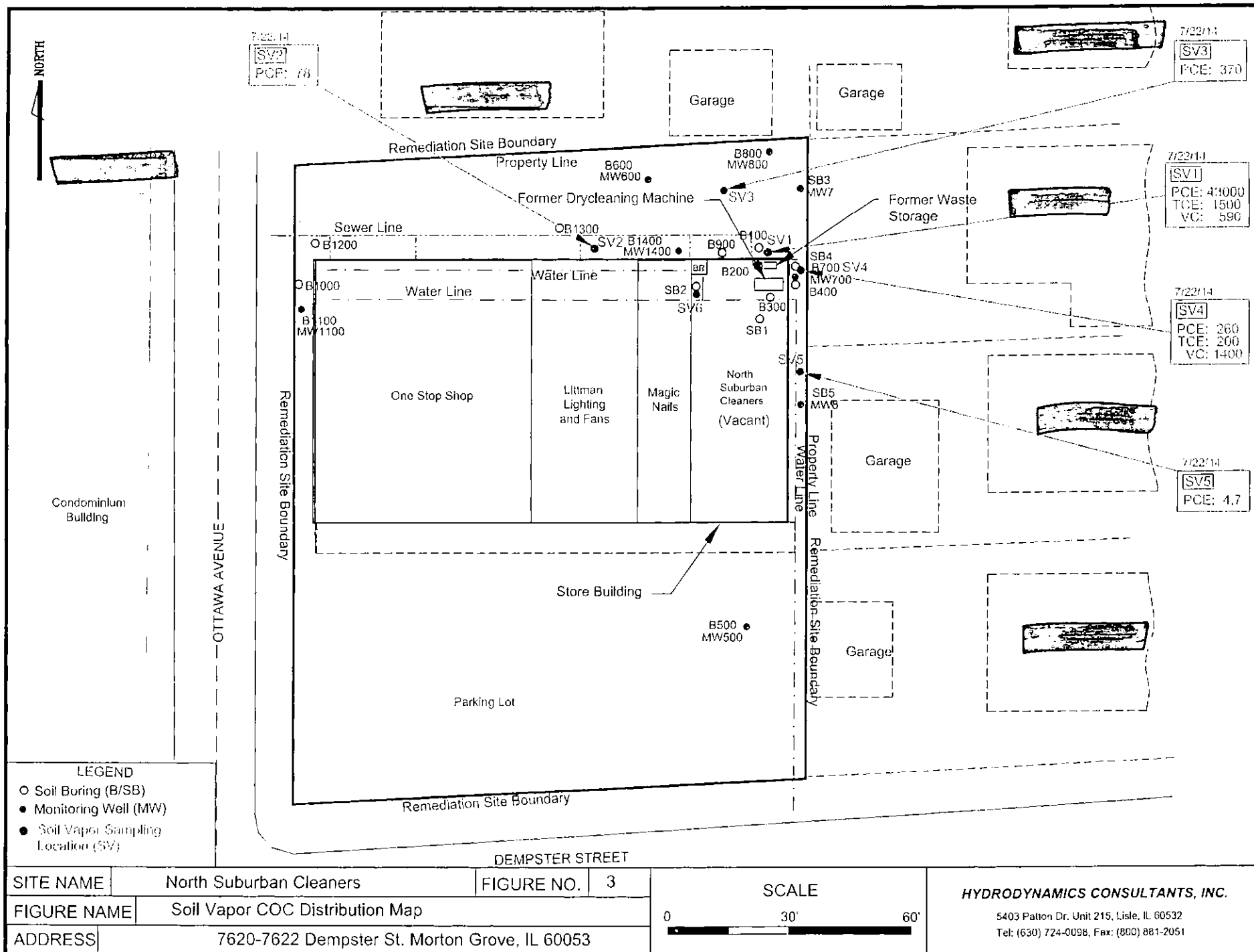


Table 1 Soil Gas Sample Analytical Results

Target Chemicals	SV1	SV2	SV3	SV4	SV5	SV6	Soil Gas (mg/m ³)		
Sampling Date	7/22/2014						Residential	Industrial/ Commercial	Csat
1,1,1-Trichloroethane	< 0.99	< 0.051	< 0.048	< 0.05	< 0.053	< 0.002	6600	41000	870000
1,1,2-Trichloroethane	< 0.99	< 0.051	< 0.048	< 0.05	< 0.053	< 0.002	170000	170000	170000
1,1-Dichloroethane	< 0.72	< 0.037	< 0.035	< 0.036	< 0.039	< 0.0015	0.099	0.81	1300000
1,1-Dichloroethene	8.6	< 0.037	< 0.035	17	0.10	< 0.0015	240	1600	3300000
1,2,4-Trichlorobenzene	< 1.4	< 0.069	< 0.065	< 0.068	< 0.073	< 0.0028	5.4	25	4300
1,2-Dibromoethane	< 1.4	< 0.069	< 0.065	< 0.068	< 0.073	< 0.0028	0.0078	0.048	140000
1,2-Dichlorobenzene	< 1.1	< 0.055	< 0.052	< 0.054	< 0.058	< 0.0022	290	1700	11000
1,2-Dichloroethane	< 0.72	< 0.037	< 0.035	< 0.036	< 0.039	< 0.0015	0.099	0.81	440000
1,2-Dichloropropane	< 0.81	< 0.041	< 0.039	< 0.041	< 0.044	< 0.0017	0.31	2.3	320000
1,4-Dichlorobenzene	< 1.1	< 0.055	< 0.052	< 0.054	< 0.058	< 0.0022	1200	6800	11000
1,4-Dioxane	< 1.6	< 0.083	< 0.078	< 0.081	< 0.087	< 0.0033	0.22	2.3	190000
2-Butanone	< 1.4	0.14	< 0.065	< 0.068	< 0.073	0.024	6400	40000	380000
Acetone	< 4.3	0.71	< 0.21	< 0.22	0.25	0.18	750000	750000	750000
Benzene	< 0.54	< 0.028	< 0.026	0.11	< 0.029	0.0096	0.37	2.8	420000
Bromodichloromethane	< 1.2	< 0.06	< 0.057	< 0.059	< 0.063	< 0.0024	450000	450000	450000
Bromoform	< 4.7	< 0.24	< 0.23	< 0.23	< 0.25	< 0.0096	11	52	78000
Bromomethane	< 1.7	< 0.087	< 0.083	< 0.086	< 0.092	< 0.0035	N/A	N/A	N/A
Carbon disulfide	< 0.56	< 0.029	< 0.027	< 0.028	< 0.03	0.0095	780	5300	1500000
Carbon tetrachloride	< 1.2	< 0.06	< 0.057	< 0.059	< 0.063	< 0.0024	0.21	1.5	1000000
Chlorobenzene	1.0	< 0.041	< 0.039	< 0.041	< 0.044	< 0.0017	69	420	74000
Chloroform	< 0.9	< 0.046	< 0.044	< 0.045	< 0.049	< 0.0019	0.11	0.92	1300000
cis-1,2-Dichloroethene	2300	2.0	5.6	3100	6.5	0.035	1100000	1100000	1100000
cis-1,3-Dichloropropene	< 0.81	< 0.041	< 0.039	< 0.041	< 0.044	< 0.0017	0.90	6.2	210000
Dibromochloromethane	< 1.5	< 0.078	< 0.074	< 0.077	< 0.082	< 0.0032	N/A	N/A	N/A
Dichlorodifluoromethane	< 0.9	< 0.046	< 0.044	< 0.045	< 0.049	< 0.0019	270	1700	33000000
Ethylbenzene	< 0.81	< 0.041	< 0.039	< 0.041	< 0.044	0.0028	1.3	9.3	59000
Isopropyl Alcohol	< 2.3	0.18	0.30	0.82	0.26	0.68	For QA/QC Purposes		
m,p-Xylene	< 1.5	< 0.078	< 0.074	< 0.077	< 0.082	0.0049	140	840	52000
Methyl tert-butyl ether	< 0.63	< 0.032	< 0.031	< 0.032	< 0.034	< 0.0013	3700	24000	1200000
Methylene chloride	< 6.2	< 0.32	< 0.3	< 0.31	0.34	< 0.013	5.6	45	2000000
Naphthalene	< 0.9	< 0.046	< 0.044	< 0.045	< 0.049	< 0.0019	0.11	0.75	620
o-Xylene	< 0.81	< 0.041	< 0.039	0.041	< 0.044	0.0021	120	790	41000
Styrene	< 0.81	< 0.041	< 0.039	< 0.041	< 0.044	< 0.0017	1400	8500	34000
Tetrachloroethene	43000	78	370	260	4.7	0.079	0.55	4.0	180000
Toluene	1.3	< 0.037	< 0.035	0.34	< 0.039	0.014	6200	40000	140000
trans-1,2-Dichloroethene	18	< 0.037	0.050	44	0.38	0.0021	85	510	1800000
trans-1,3-Dichloropropene	< 0.81	< 0.041	< 0.039	< 0.041	< 0.044	< 0.0017	0.90	6.2	210000
Trichloroethene	1500	0.70	6.6	200	2.3	0.0065	1.5	12	530000
Trichlorofluoromethane	< 0.99	< 0.051	< 0.048	< 0.05	< 0.053	< 0.002	860	5600	6300000
Vinyl acetate	< 6.3	< 0.32	< 0.31	< 0.32	< 0.34	< 0.013	250	1600	430000
Vinyl chloride	590	0.66	1.0	14000	4.4	0.0099	0.29	4.8	11000000
Xylenes, Total	< 2.3	< 0.12	< 0.11	< 0.12	< 0.13	0.0070	140	840	49000

Note:

Bold - Tier I objective exceeded; N/A - not applicable.

Site Photos



Front View (to the North) of the Property.
The East end unit was the Cleaners



Northeast Corner of the Property (to the East)



Northeast Corner of the Property (to the South)



Former Drycleaning Machine Area (to the North)



Coring Concrete Floor at SV6 Location



Soil Gas Sampling for SV6



Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

July 28, 2014

Hydrodynamics Consultant, Inc.
5403 Patton Drive
Lisle, IL 60532

Telephone: (630) 724-0098
Fax: (800) 881-2051

Analytical Report for STAT Work Order: 14070816 Revision 0

RE: North Suburban Cleaners, 7620-7622 Dempster Street

Dear Dr. Yong Yu:

STAT Analysis received 6 samples for the referenced project on 7/22/2014 4:50:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Frank Capoccia
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

Client: Hydrodynamics Consultant, Inc.**Project:** North Suburban Cleaners, 7620-7622 Dempster Street**Work Order Sample Summary****Work Order:** 14070816 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
14070816-001A	SV6		7/22/2014 11:10:00 AM	7/22/2014
14070816-002A	SV4		7/22/2014 11:35:00 AM	7/22/2014
14070816-003A	SV5		7/22/2014 12:00:00 PM	7/22/2014
14070816-004A	SV1		7/22/2014 12:30:00 PM	7/22/2014
14070816-005A	SV3		7/22/2014 1:05:00 PM	7/22/2014
14070816-006A	SV2		7/22/2014 1:45:00 PM	7/22/2014

**Analysis Corporation**

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-

Date Reported: July 28, 2014

ANALYTICAL RESULTS

Date Printed: July 28, 2014

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV6

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 11:10:00 AM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-001

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
1,1,1-Trichloroethane	ND	0.0020		mg/m ³	1	7/24/2014
1,1,2-Trichloroethane	ND	0.0020		mg/m ³	1	7/24/2014
1,1-Dichloroethane	ND	0.0015		mg/m ³	1	7/24/2014
1,1-Dichloroethene	ND	0.0015		mg/m ³	1	7/24/2014
1,2,4-Trichlorobenzene	ND	0.0028		mg/m ³	1	7/24/2014
1,2-Dibromoethane	ND	0.0028		mg/m ³	1	7/24/2014
1,2-Dichlorobenzene	ND	0.0022		mg/m ³	1	7/24/2014
1,2-Dichloroethane	ND	0.0015		mg/m ³	1	7/24/2014
1,2-Dichloropropane	ND	0.0017		mg/m ³	1	7/24/2014
1,4-Dichlorobenzene	ND	0.0022		mg/m ³	1	7/24/2014
1,4-Dioxane	ND	0.0033		mg/m ³	1	7/24/2014
2-Butanone	0.024	0.0028		mg/m ³	1	7/24/2014
Acetone	0.18	0.0089	*	mg/m ³	1	7/24/2014
Benzene	0.0096	0.0011		mg/m ³	1	7/24/2014
Bromodichloromethane	ND	0.0024		mg/m ³	1	7/24/2014
Bromoform	ND	0.0096		mg/m ³	1	7/24/2014
Bromomethane	ND	0.0035		mg/m ³	1	7/24/2014
Carbon disulfide	0.0095	0.0012		mg/m ³	1	7/24/2014
Carbon tetrachloride	ND	0.0024		mg/m ³	1	7/24/2014
Chlorobenzene	ND	0.0017		mg/m ³	1	7/24/2014
Chloroform	ND	0.0019		mg/m ³	1	7/24/2014
cis-1,2-Dichloroethene	0.035	0.0015		mg/m ³	1	7/24/2014
cis-1,3-Dichloropropene	ND	0.0017		mg/m ³	1	7/24/2014
Dibromochloromethane	ND	0.0032		mg/m ³	1	7/24/2014
Dichlorodifluoromethane	ND	0.0019		mg/m ³	1	7/24/2014
Ethylbenzene	0.0028	0.0017		mg/m ³	1	7/24/2014
Isopropyl Alcohol	0.68	0.12		mg/m ³	25	7/23/2014
m,p-Xylene	0.0049	0.0032		mg/m ³	1	7/24/2014
Methyl tert-butyl ether	ND	0.0013		mg/m ³	1	7/24/2014
Methylene chloride	ND	0.013		mg/m ³	1	7/24/2014
Naphthalene	ND	0.0019		mg/m ³	1	7/24/2014
o-Xylene	0.0021	0.0017		mg/m ³	1	7/24/2014
Styrene	ND	0.0017		mg/m ³	1	7/24/2014
Tetrachloroethene	0.079	0.0026		mg/m ³	1	7/24/2014
Toluene	0.014	0.0015		mg/m ³	1	7/24/2014
trans-1,2-Dichloroethene	0.0021	0.0015		mg/m ³	1	7/24/2014
trans-1,3-Dichloropropene	ND	0.0017		mg/m ³	1	7/24/2014
Trichloroethene	0.0065	0.0020		mg/m ³	1	7/24/2014

ND - Not Detected at the Reporting Limit

RL - Reporting / Quantitation Limit for the analysis

Qualifiers:

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

HT - Sample received past holding time

E - Value above quantitation range

* - Non-accredited parameter

H - Holding time exceeded



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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-

Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV6

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 11:10:00 AM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-001

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
Trichlorofluoromethane	ND	0.0020		mg/m ³	1	7/24/2014
Vinyl acetate	ND	0.013		mg/m ³	1	7/24/2014
Vinyl chloride	0.0099	0.00093		mg/m ³	1	7/24/2014
Xylenes, Total	0.0070	0.0048		mg/m ³	1	7/24/2014

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-

Date Reported: July 28, 2014

ANALYTICAL RESULTS

Date Printed: July 28, 2014

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV4

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 11:35:00 AM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-002

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
1,1,1-Trichloroethane	ND	0.050		mg/m ³	25	7/23/2014
1,1,2-Trichloroethane	ND	0.050		mg/m ³	25	7/23/2014
1,1-Dichloroethane	ND	0.036		mg/m ³	25	7/23/2014
1,1-Dichloroethene	17	14		mg/m ³	10000	7/24/2014
1,2,4-Trichlorobenzene	ND	0.068		mg/m ³	25	7/23/2014
1,2-Dibromoethane	ND	0.068		mg/m ³	25	7/23/2014
1,2-Dichlorobenzene	ND	0.054		mg/m ³	25	7/23/2014
1,2-Dichloroethane	ND	0.036		mg/m ³	25	7/23/2014
1,2-Dichloropropane	ND	0.041		mg/m ³	25	7/23/2014
1,4-Dichlorobenzene	ND	0.054		mg/m ³	25	7/23/2014
1,4-Dioxane	ND	0.081		mg/m ³	25	7/23/2014
2-Butanone	ND	0.068		mg/m ³	25	7/23/2014
Acetone	ND	0.22	*	mg/m ³	25	7/23/2014
Benzene	0.11	0.027		mg/m ³	25	7/23/2014
Bromodichloromethane	ND	0.059		mg/m ³	25	7/23/2014
Bromoform	ND	0.23		mg/m ³	25	7/23/2014
Bromomethane	ND	0.086		mg/m ³	25	7/23/2014
Carbon disulfide	ND	0.028		mg/m ³	25	7/23/2014
Carbon tetrachloride	ND	0.059		mg/m ³	25	7/23/2014
Chlorobenzene	ND	0.041		mg/m ³	25	7/23/2014
Chloroform	ND	0.045		mg/m ³	25	7/23/2014
cis-1,2-Dichloroethene	3100	14		mg/m ³	10000	7/24/2014
cis-1,3-Dichloropropene	ND	0.041		mg/m ³	25	7/23/2014
Dibromochloromethane	ND	0.077		mg/m ³	25	7/23/2014
Dichlorodifluoromethane	ND	0.045		mg/m ³	25	7/23/2014
Ethylbenzene	ND	0.041		mg/m ³	25	7/23/2014
Isopropyl Alcohol	0.82	0.11		mg/m ³	25	7/23/2014
m,p-Xylene	ND	0.077		mg/m ³	25	7/23/2014
Methyl tert-butyl ether	ND	0.032		mg/m ³	25	7/23/2014
Methylene chloride	ND	0.31		mg/m ³	25	7/23/2014
Naphthalene	ND	0.045		mg/m ³	25	7/23/2014
o-Xylene	0.041	0.041		mg/m ³	25	7/23/2014
Styrene	ND	0.041		mg/m ³	25	7/23/2014
Tetrachloroethene	260	25		mg/m ³	10000	7/24/2014
Toluene	0.34	0.036		mg/m ³	25	7/23/2014
trans-1,2-Dichloroethene	44	14		mg/m ³	10000	7/24/2014
trans-1,3-Dichloropropene	ND	0.041		mg/m ³	25	7/23/2014
Trichloroethene	200	20		mg/m ³	10000	7/24/2014

ND - Not Detected at the Reporting Limit

RL - Reporting / Quantitation Limit for the analysis

Qualifiers:

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

HT - Sample received past holding time

E - Value above quantitation range

* - Non-accredited parameter

H - Holding time exceeded

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Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV4

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 11:35:00 AM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-002

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
Trichlorofluoromethane	ND	0.050		mg/m ³	25	7/23/2014
Vinyl acetate	ND	0.32		mg/m ³	25	7/23/2014
Vinyl chloride	14000	180		mg/m ³	200000	7/24/2014
Xylenes, Total	ND	0.12		mg/m ³	25	7/23/2014

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

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Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV5

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 12:00:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-003

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
1,1,1-Trichloroethane	ND	0.053		mg/m ³	25	7/23/2014
1,1,2-Trichloroethane	ND	0.053		mg/m ³	25	7/23/2014
1,1-Dichloroethane	ND	0.039		mg/m ³	25	7/23/2014
1,1-Dichloroethene	0.10	0.039		mg/m ³	25	7/23/2014
1,2,4-Trichlorobenzene	ND	0.073		mg/m ³	25	7/23/2014
1,2-Dibromoethane	ND	0.073		mg/m ³	25	7/23/2014
1,2-Dichlorobenzene	ND	0.058		mg/m ³	25	7/23/2014
1,2-Dichloroethane	ND	0.039		mg/m ³	25	7/23/2014
1,2-Dichloropropane	ND	0.044		mg/m ³	25	7/23/2014
1,4-Dichlorobenzene	ND	0.058		mg/m ³	25	7/23/2014
1,4-Dioxane	ND	0.087		mg/m ³	25	7/23/2014
2-Butanone	ND	0.073		mg/m ³	25	7/23/2014
Acetone	0.25	0.23	*	mg/m ³	25	7/23/2014
Benzene	ND	0.029		mg/m ³	25	7/23/2014
Bromodichloromethane	ND	0.063		mg/m ³	25	7/23/2014
Bromoform	ND	0.25		mg/m ³	25	7/23/2014
Bromomethane	ND	0.092		mg/m ³	25	7/23/2014
Carbon disulfide	ND	0.030		mg/m ³	25	7/23/2014
Carbon tetrachloride	ND	0.063		mg/m ³	25	7/23/2014
Chlorobenzene	ND	0.044		mg/m ³	25	7/23/2014
Chloroform	ND	0.049		mg/m ³	25	7/23/2014
cis-1,2-Dichloroethene	6.5	0.78		mg/m ³	500	7/24/2014
cis-1,3-Dichloropropene	ND	0.044		mg/m ³	25	7/23/2014
Dibromochloromethane	ND	0.082		mg/m ³	25	7/23/2014
Dichlorodifluoromethane	ND	0.049		mg/m ³	25	7/23/2014
Ethylbenzene	ND	0.044		mg/m ³	25	7/23/2014
Isopropyl Alcohol	0.26	0.12		mg/m ³	25	7/23/2014
m,p-Xylene	ND	0.082		mg/m ³	25	7/23/2014
Methyl tert-butyl ether	ND	0.034		mg/m ³	25	7/23/2014
Methylene chloride	0.34	0.33		mg/m ³	25	7/23/2014
Naphthalene	ND	0.049		mg/m ³	25	7/23/2014
o-Xylene	ND	0.044		mg/m ³	25	7/23/2014
Styrene	ND	0.044		mg/m ³	25	7/23/2014
Tetrachloroethene	4.7	0.068		mg/m ³	25	7/23/2014
Toluene	ND	0.039		mg/m ³	25	7/23/2014
trans-1,2-Dichloroethene	0.38	0.039		mg/m ³	25	7/23/2014
trans-1,3-Dichloropropene	ND	0.044		mg/m ³	25	7/23/2014
Trichloroethene	2.3	0.053		mg/m ³	25	7/23/2014

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded



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Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV5

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 12:00:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-003

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS						
					Prep Date: 7/23/2014	Analyst: BK
Trichlorofluoromethane	ND	0.053		mg/m ³	25	7/23/2014
Vinyl acetate	ND	0.34		mg/m ³	25	7/23/2014
Vinyl chloride	4.4	0.49		mg/m ³	500	7/24/2014
Xylenes, Total	ND	0.13		mg/m ³	25	7/23/2014

Qualifiers:	ND - Not Detected at the Reporting Limit	RL - Reporting / Quantitation Limit for the analysis
	J - Analyte detected below quantitation limits	S - Spike Recovery outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	R - RPD outside accepted recovery limits
	HT - Sample received past holding time	E - Value above quantitation range
	* - Non-accredited parameter	H - Holding time exceeded

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Date Reported: July 28, 2014

ANALYTICAL RESULTS

Date Printed: July 28, 2014

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV1

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 12:30:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-004

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
1,1,1-Trichloroethane	ND	0.99		mg/m ³	500	7/23/2014
1,1,2-Trichloroethane	ND	0.99		mg/m ³	500	7/23/2014
1,1-Dichloroethane	ND	0.72		mg/m ³	500	7/23/2014
1,1-Dichloroethene	8.6	0.72		mg/m ³	500	7/23/2014
1,2,4-Trichlorobenzene	ND	1.4		mg/m ³	500	7/23/2014
1,2-Dibromoethane	ND	1.4		mg/m ³	500	7/23/2014
1,2-Dichlorobenzene	ND	1.1		mg/m ³	500	7/23/2014
1,2-Dichloroethane	ND	0.72		mg/m ³	500	7/23/2014
1,2-Dichloropropane	ND	0.81		mg/m ³	500	7/23/2014
1,4-Dichlorobenzene	ND	1.1		mg/m ³	500	7/23/2014
1,4-Dioxane	ND	1.6		mg/m ³	500	7/23/2014
2-Butanone	ND	1.4		mg/m ³	500	7/23/2014
Acetone	ND	4.3	*	mg/m ³	500	7/23/2014
Benzene	ND	0.54		mg/m ³	500	7/23/2014
Bromodichloromethane	ND	1.2		mg/m ³	500	7/23/2014
Bromofom	ND	4.7		mg/m ³	500	7/23/2014
Bromomethane	ND	1.7		mg/m ³	500	7/23/2014
Carbon disulfide	ND	0.56		mg/m ³	500	7/23/2014
Carbon tetrachloride	ND	1.2		mg/m ³	500	7/23/2014
Chlorobenzene	1.0	0.81		mg/m ³	500	7/23/2014
Chloroform	ND	0.90		mg/m ³	500	7/23/2014
cis-1,2-Dichloroethene	2300	14		mg/m ³	10000	7/24/2014
cis-1,3-Dichloropropene	ND	0.81		mg/m ³	500	7/23/2014
Dibromochloromethane	ND	1.5		mg/m ³	500	7/23/2014
Dichlorodifluoromethane	ND	0.90		mg/m ³	500	7/23/2014
Ethylbenzene	ND	0.81		mg/m ³	500	7/23/2014
Isopropyl Alcohol	ND	2.3		mg/m ³	500	7/23/2014
m,p-Xylene	ND	1.5		mg/m ³	500	7/23/2014
Methyl tert-butyl ether	ND	0.63		mg/m ³	500	7/23/2014
Methylene chloride	ND	6.2		mg/m ³	500	7/23/2014
Naphthalene	ND	0.90		mg/m ³	500	7/23/2014
o-Xylene	ND	0.81		mg/m ³	500	7/23/2014
Styrene	ND	0.81		mg/m ³	500	7/23/2014
Tetrachloroethene	43000	500		mg/m ³	200000	7/24/2014
Toluene	1.3	0.72		mg/m ³	500	7/23/2014
trans-1,2-Dichloroethene	18	0.72		mg/m ³	500	7/23/2014
trans-1,3-Dichloropropene	ND	0.81		mg/m ³	500	7/23/2014
Trichloroethene	1500	20		mg/m ³	10000	7/24/2014

ND - Not Detected at the Reporting Limit

RL - Reporting / Quantitation Limit for the analysis

Qualifiers: J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

HT - Sample received past holding time

E - Value above quantitation range

* - Non-accredited parameter

H - Holding time exceeded

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Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV1

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 12:30:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-004

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
Trichlorofluoromethane	ND	0.99		mg/m ³	500	7/23/2014
Vinyl acetate	ND	6.3		mg/m ³	500	7/23/2014
Vinyl chloride	590	9.0		mg/m ³	10000	7/24/2014
Xylenes, Total	ND	2.3		mg/m ³	500	7/23/2014

Qualifiers:	ND - Not Detected at the Reporting Limit	RL - Reporting / Quantitation Limit for the analysis
	J - Analyte detected below quantitation limits	S - Spike Recovery outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	R - RPD outside accepted recovery limits
	HT - Sample received past holding time	E - Value above quantitation range
	* - Non-accredited parameter	H - Holding time exceeded

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Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV3

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 1:05:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-005

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
1,1,1-Trichloroethane	ND	0.048		mg/m ³	25	7/23/2014
1,1,2-Trichloroethane	ND	0.048		mg/m ³	25	7/23/2014
1,1-Dichloroethane	ND	0.035		mg/m ³	25	7/23/2014
1,1-Dichloroethene	ND	0.035		mg/m ³	25	7/23/2014
1,2,4-Trichlorobenzene	ND	0.065		mg/m ³	25	7/23/2014
1,2-Dibromoethane	ND	0.065		mg/m ³	25	7/23/2014
1,2-Dichlorobenzene	ND	0.052		mg/m ³	25	7/23/2014
1,2-Dichloroethane	ND	0.035		mg/m ³	25	7/23/2014
1,2-Dichloropropane	ND	0.039		mg/m ³	25	7/23/2014
1,4-Dichlorobenzene	ND	0.052		mg/m ³	25	7/23/2014
1,4-Dioxane	ND	0.078		mg/m ³	25	7/23/2014
2-Butanone	ND	0.065		mg/m ³	25	7/23/2014
Acetone	ND	0.21	*	mg/m ³	25	7/23/2014
Benzene	ND	0.026		mg/m ³	25	7/23/2014
Bromodichloromethane	ND	0.057		mg/m ³	25	7/23/2014
Bromoform	ND	0.23		mg/m ³	25	7/23/2014
Bromomethane	ND	0.083		mg/m ³	25	7/23/2014
Carbon disulfide	ND	0.027		mg/m ³	25	7/23/2014
Carbon tetrachloride	ND	0.057		mg/m ³	25	7/23/2014
Chlorobenzene	ND	0.039		mg/m ³	25	7/23/2014
Chloroform	ND	0.044		mg/m ³	25	7/23/2014
cis-1,2-Dichloroethene	5.6	0.035		mg/m ³	25	7/23/2014
cis-1,3-Dichloropropene	ND	0.039		mg/m ³	25	7/23/2014
Dibromochloromethane	ND	0.074		mg/m ³	25	7/23/2014
Dichlorodifluoromethane	ND	0.044		mg/m ³	25	7/23/2014
Ethylbenzene	ND	0.039		mg/m ³	25	7/23/2014
Isopropyl Alcohol	0.30	0.11		mg/m ³	25	7/23/2014
m,p-Xylene	ND	0.074		mg/m ³	25	7/23/2014
Methyl tert-butyl ether	ND	0.031		mg/m ³	25	7/23/2014
Methylene chloride	ND	0.30		mg/m ³	25	7/23/2014
Naphthalene	ND	0.044		mg/m ³	25	7/23/2014
o-Xylene	ND	0.039		mg/m ³	25	7/23/2014
Styrene	ND	0.039		mg/m ³	25	7/23/2014
Tetrachloroethene	370	24		mg/m ³	10000	7/25/2014
Toluene	ND	0.035		mg/m ³	25	7/23/2014
trans-1,2-Dichloroethene	0.050	0.035		mg/m ³	25	7/23/2014
trans-1,3-Dichloropropene	ND	0.039		mg/m ³	25	7/23/2014
Trichloroethene	6.6	0.048		mg/m ³	25	7/23/2014

ND - Not Detected at the Reporting Limit

RL - Reporting / Quantitation Limit for the analysis

Qualifiers:

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

HT - Sample received past holding time

E - Value above quantitation range

* - Non-accredited parameter

H - Holding time exceeded

STAT Analysis Corporation

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-

Date Reported: July 28, 2014

Date Printed: July 28, 2014

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV3

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 1:05:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-005

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
Trichlorofluoromethane	ND	0.048		mg/m ³	25	7/23/2014
Vinyl acetate	ND	0.31		mg/m ³	25	7/23/2014
Vinyl chloride	1.0	0.44		mg/m ³	500	7/24/2014
Xylenes, Total	ND	0.11		mg/m ³	25	7/23/2014

Qualifiers:

ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

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RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date Reported: July 28, 2014

ANALYTICAL RESULTS

Date Printed: July 28, 2014

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV2

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 1:45:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-006

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15			Prep Date: 7/23/2014	Analyst: BK
1,1,1-Trichloroethane	ND	0.051		mg/m ³	25	7/23/2014
1,1,2-Trichloroethane	ND	0.051		mg/m ³	25	7/23/2014
1,1-Dichloroethane	ND	0.037		mg/m ³	25	7/23/2014
1,1-Dichloroethene	ND	0.037		mg/m ³	25	7/23/2014
1,2,4-Trichlorobenzene	ND	0.069		mg/m ³	25	7/23/2014
1,2-Dibromoethane	ND	0.069		mg/m ³	25	7/23/2014
1,2-Dichlorobenzene	ND	0.055		mg/m ³	25	7/23/2014
1,2-Dichloroethane	ND	0.037		mg/m ³	25	7/23/2014
1,2-Dichloropropane	ND	0.041		mg/m ³	25	7/23/2014
1,4-Dichlorobenzene	ND	0.055		mg/m ³	25	7/23/2014
1,4-Dioxane	ND	0.083		mg/m ³	25	7/23/2014
2-Butanone	0.14	0.069		mg/m ³	25	7/23/2014
Acetone	0.71	0.22	*	mg/m ³	25	7/23/2014
Benzene	ND	0.028		mg/m ³	25	7/23/2014
Bromodichloromethane	ND	0.060		mg/m ³	25	7/23/2014
Bromoform	ND	0.24		mg/m ³	25	7/23/2014
Bromomethane	ND	0.087		mg/m ³	25	7/23/2014
Carbon disulfide	ND	0.029		mg/m ³	25	7/23/2014
Carbon tetrachloride	ND	0.060		mg/m ³	25	7/23/2014
Chlorobenzene	ND	0.041		mg/m ³	25	7/23/2014
Chloroform	ND	0.046		mg/m ³	25	7/23/2014
cis-1,2-Dichloroethene	2.0	0.037		mg/m ³	25	7/23/2014
cis-1,3-Dichloropropene	ND	0.041		mg/m ³	25	7/23/2014
Dibromochloromethane	ND	0.078		mg/m ³	25	7/23/2014
Dichlorodifluoromethane	ND	0.046		mg/m ³	25	7/23/2014
Ethylbenzene	ND	0.041		mg/m ³	25	7/23/2014
Isopropyl Alcohol	0.18	0.11		mg/m ³	25	7/23/2014
m,p-Xylene	ND	0.078		mg/m ³	25	7/23/2014
Methyl tert-butyl ether	ND	0.032		mg/m ³	25	7/23/2014
Methylene chloride	ND	0.32		mg/m ³	25	7/23/2014
Naphthalene	ND	0.046		mg/m ³	25	7/23/2014
o-Xylene	ND	0.041		mg/m ³	25	7/23/2014
Styrene	ND	0.041		mg/m ³	25	7/23/2014
Tetrachloroethene	78	1.3		mg/m ³	500	7/24/2014
Toluene	ND	0.037		mg/m ³	25	7/23/2014
trans-1,2-Dichloroethene	ND	0.037		mg/m ³	25	7/23/2014
trans-1,3-Dichloropropene	ND	0.041		mg/m ³	25	7/23/2014
Trichloroethene	0.70	0.051		mg/m ³	25	7/23/2014

Qualifiers:

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R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded



Analysis Corporation

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Date Reported: July 28, 2014

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ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.

Client Sample ID: SV2

Work Order: 14070816 Revision 0

Collection Date: 7/22/2014 1:45:00 PM

Project: North Suburban Cleaners, 7620-7622 Dempster Str

Matrix: Air

Lab ID: 14070816-006

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS		TO-15		Prep Date: 7/23/2014		Analyst: BK
Trichlorofluoromethane	ND	0.051		mg/m ³	25	7/23/2014
Vinyl acetate	ND	0.32		mg/m ³	25	7/23/2014
Vinyl chloride	0.66	0.46		mg/m ³	500	7/24/2014
Xylenes, Total	ND	0.12		mg/m ³	25	7/23/2014

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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HT - Sample received past holding time

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STAT Analysis Corporation

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e-mail address: STATinfo@STATAanalysis.com A I H A accredited 10248, N V L A P accredited 101202-0

CHAIN OF CUSTODY RECORD

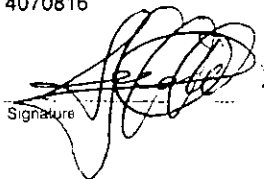
No:

Page: of

[illegible]

Sample Receipt ChecklistClient Name **HYDRODYNAMICS**Date and Time Received: **7/22/2014 4:50:00 PM**Work Order Number **14070816**Received by: **DO**

Checklist completed by:



Signature

7/22/14

Date

Reviewed by:

FL

Initials

7/28/14

Date

Matrix:

Carrier name **STAT Analysis**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels/containers?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container or Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - Samples pH checked?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Checked by: _____
Water - Samples properly preserved?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	pH Adjusted? _____

Any No response must be detailed in the comments section below.

Comments:

Client / Person
contacted: _____

Date contacted: _____

Contacted by: _____

Response: _____